



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/519,410

01/05/2005

Yosuke Egawa

040707

2961

23850 7590 05/02/2007
ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP
1725 K STREET, NW
SUITE 1000
WASHINGTON, DC 20006

EXAMINER

TOSCANO, ALICIA

ART UNIT

PAPER NUMBER

1712

MAIL DATE

DELIVERY MODE

05/02/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/519,410	Applicant(s) EGAWA, YOSUKE	
	Examiner Alicia M. Toscano	Art Unit 1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
1. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Terada (US 6326440) in view of Yamada (WO 03022927, US 20050043462 is used as an equivalent English translation).

Terada discloses biodegradable films comprising polylactic acid and polyesters. Said composition comprises 80-20% polylactic acid and 20-80% polyester (abstract). Terada further discloses the use of a polyester which has a Tg of less than 0C in order to improve shock and cold resistance (Column 5 Lines 15-17). Terada discloses the thickness of the film to be around 40 micrometers (Column 8 Line 66) however Terada

Art Unit: 1712

do not include the use of a film thickness of between 100 and 500 microns, as further required by amended Claim 1.

Yamada discloses biodegradable resin compositions. Said resins are formed into sheets having a thickness of between 150-500 microns. The thickness of the biodegradable resin is chosen depending on the strength requirements of the final product.

It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Terada the use of a film thickness of between 150-500 micrometers, as taught by Yamada, in order to form products with superior strength.

Further, in claims 1-6 and 12-15, the recitation "for molding" has been given little patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

In the instant case, the preamble merely recites the intended use of the composition, wherein the prior art can meet this future limitation by merely being capable of such intended use.

As the compositional requirements are met the Examiner finds the T_m, degree of crystallization and volume reduction ratio to be inherent in the Claims. Thus, Terada and Yamada meet the limitations set forth in Claims 1-6 and 12-15.

Terada does not disclose molded articles from the biodegradable film as further required by Claims 7, 8, 9 and 10. The film of Terada has superior physical properties such as biodegradability and heat sealability.

Yamada discloses biodegradable resin compositions. Said compositions are in the form of films. Said films are further molded into molded articles such as containers, cards and the like [0060]-[0061]. Said articles are useful in the consumer product industry to make biodegradable disposable products.

It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Terada the use of the biodegradable film as a molded article, as taught by Yamada, in order to produce superior biodegradable disposable products.

As the composition requirements have been met, Examiner finds the volume reduction ratio of 6% or less to be inherent in Claims 5, 7, 8 and 9.

Regarding Claims 9 and 11, Terada includes elements of the invention as discussed above. Terada does not include post-crystallization of the molded article produced from said resin.

Yamada discloses biodegradable resin compositions, and molded articles from said compositions. Yamada discloses a post-crystallization step of the molded article, in order to increase the crystallization of the resulting object [0065]. It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Obuchi and Terada, the use of a post-crystallization step, as taught by Yamada, in order to further increase the crystallization of the resulting object.

Art Unit: 1712

Remarks:

Applicant argues newly added recitation of "for molding" overcomes the prior art. Applicant argues the polyester of Obuchi is a low molecular weight elastomer used as a tackifier and thusly doesn't meet the limitations of the claims. Applicant argues Obuchi doesn't suggest blending biodegradable polymers in the polylactic composition and that Obuchi does not disclose the thickness of the sheet, as newly amended. Regarding Terada Applicant argues Terada does meet the limitations of the Claim because the thickness of Terada's films is only 40 microns. Regarding Yamada Applicant firstly clarifies the date of the reference, as a 102(a) date and further argues the post-crystallization step does not meet the limitations of Tg and Tm as set forth in the claim.

Examiner disagrees. The newly added recitation of "for molding" is moot since it is a preamble, as set forth above. The thickness of the sheet is moot in lieu of the new rejection set forth above.

Regarding Obuchi, said arguments are moot since Obuchi is overcome by the amendment requiring PLA and polyester to sum to 100 mass% of the film.

Regarding Terada, the film thickness is as set forth above and meets the requirements of the newly amended Claims.

Regarding Yamada, Examiner agrees that Yamada is a 102(a) date, however since the rejection is a 103 this point is moot. Further, the crystallization step of Yamada in [0065] (end of paragraph) discloses using a temperature not lower than the Tg and not higher than the Tm. Applicant's arguments were drawn to the molding process at the beginning of the paragraph and are therefore moot.

Double Patenting

The double patenting rejection, as set forth in the action dated 11/28/06 stands.

Conclusion

Response to Arguments

2. Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection. See above.

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

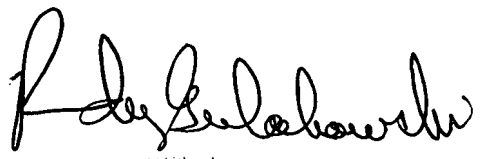
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia M. Toscano whose telephone number is 571-272-2451. The examiner can normally be reached on Monday to Friday 8:30 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AMT0


RANDY GULAKOWSKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700